

WHAT IS CLAIMED IS:

1. A weight identification method that identifies weights assigned to a plurality of models, each of which includes a group of parameters, the weights being used to form a control model that represents a control system, the method comprising:

- 5 specifying a first weight that is assigned to one of the plurality of models; and  
specifying a second weight that is assigned to at least one model other than the one of the plurality of models, based on the first weight assigned to the one of the plurality of models.

2. A weight identification method according to claim 1, wherein if the first weight assigned to the one of the plurality of models increases, the second weight assigned to the at least one model that is other than the one of the plurality of models decreases.

3. A feedback control method comprising:  
specifying a first weight that is assigned to one of a plurality of models, each of which includes a group of parameters;

15 specifying a second weight that is assigned to at least one model that is other than the one of the plurality of models, based on the weight assigned to the one of the plurality of models;

forming a control model that represents a control system, based on the first and second weights; and

20 feedback-controlling, based on a target value for controlling the control system, an amount of control of the control system controlled based on the target value, the first weight and the second weight, such an instruction value for the control system that the amount of control becomes substantially equal to the target value.

4. A feedback control method according to claim 3, wherein the first weight and the second weight each have a value that is greater than or equal to zero and less than or equal to one.

5. A feedback control method according to claim 3, wherein the first and second weights assigned individually to the plurality of models are estimated based on a difference between the target value and the amount of control, and a difference of the instruction value from a value of equilibrium.

6. A feedback control method according to claim 5, wherein the first weight

and second weight each have a value that is greater than or equal to zero and less than or equal to one.

7. A feedback control method according to claim 3, wherein in a control of a slip control apparatus of a clutch, the slip control apparatus is feedback-controlled based on the first and second weights so that a slip rotation speed of the slip control apparatus becomes substantially equal to a target rotation speed.

8. A feedback control method according to claim 7, wherein the first and second weights are estimated based on a difference between the slip rotation speed and the target rotation speed, and a deviation of the instruction value for the slip control apparatus from a value of equilibrium of the instruction value.

9. A feedback control method according to claim 3, wherein in a control of a vehicular continuously variable transmission, the vehicular continuously variable transmission is feedback-controlled based on the first and second weights so that a rotation speed of the vehicular continuously variable transmission becomes substantially equal to a target rotation speed.

10. A feedback control method according to claim 9, wherein the first and second weights are estimated based on a difference between the rotation speed of vehicular continuously variable transmission and the target rotation speed, and a deviation of the instruction value for the vehicular continuously variable transmission from a value of equilibrium of the instruction value.